

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Claim 1. (Currently amended) A pin removal and placement tool consisting essentially of comprising:

a body member;

a drive shaft extending from the body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip;

a sole striking surface on the body member, the striking surface having a striking axis perpendicular thereto that intersects the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the sole striking surface will advance the drive shaft in the direction the tip is facing; and

a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the striking surface.

Claim 2. (Currently amended) A tool as defined in claim 1, ~~further comprising an anvil plate on the body member, the anvil plate defining~~ wherein the sole striking surface is defined by an anvil plate on the body member.

Claim 3. (Previously presented) A tool as defined in claim 1 wherein the body member defines a contact surface that extends in a generally parallel relation to the longitudinal axis of the drive shaft.

Claim 4. (Original) A tool as defined in claim 2 wherein the body member comprises a rear edge and a striking plate fixedly mounted along the rear edge and at right angles thereto, and wherein the anvil plate is mounted on the striking plate perpendicularly thereto.

Claim 5. (Original) A tool as defined in claim 4 wherein the striking plate has a tapered configuration having a base and an opposite narrow end, the base being situated at the upper rear portion of the body member, the narrow end being situated at the lower rear portion, and wherein the anvil plate is centered on the base of the striking plate.

Claim 6. (Original) A tool as defined in claim 5 wherein the narrow end of the striking plate has two legs forming a slot between them, the slot having a width of about the thickness of the body member and an edge of the body member is received between the legs.

Claim 7. (Original) A tool as defined in claim 5 wherein the striking plate and anvil plate are integrally formed with the body member.

Claim 8. (Currently amended) A pin removal and placement tool consistently essentially ~~of comprising~~:

a body member defining a contact edge;

a drive shaft extending from the body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip, the drive shaft extending from the body member in generally parallel relation to the contact edge with the contact edge extending beyond the tip of the drive shaft;

an anvil plate on the body member, the anvil plate defining a sole striking surface of the tool and having a striking axis perpendicular to the sole striking surface, the striking axis intersecting the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the striking surface will urge the drive shaft in the direction the tip is facing; and

a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the anvil plate.

Claim 9. (Original) A tool as defined in claim 1 or claim 8 wherein the handle is removably attached to the body member, and is dimensioned and configured to be selectively mounted on the tool to extend from one side or the other of the body member.

Claim 10. (Original) A tool as defined in claim 1 or claim 8 wherein the handle is fixedly mounted to the body member, the handle extending from both sides of the body member.

Claim 11. (Previously presented) A pin removal and placement tool comprising:

- a body member;
- a drive shaft extending from the body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip;
- a striking surface on the body member, the striking surface having a striking axis perpendicular thereto that intersects the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the striking surface will advance the drive shaft in the direction the tip is facing;
- a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the striking surface; and
- an adaptor sleeve that is dimensioned and configured to be slidably mounted on the drive shaft to extend beyond the drive shaft, and to receive a retaining pin therein.

Claim 12. (Original) A tool as defined in claim 1 or claim 8 wherein the angle θ is about 40 to 60 degrees.

Claim 13. (Original) A tool as defined in claim 12 wherein the angle θ is about 40 to 50 degrees.

Claim 14. (Currently amended) ~~A tool as defined in claim 3 or claim 8~~ A pin removal and placement tool comprising:

a body member;

a drive shaft extending from the body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip, and the body member defining a contact surface that extends in a generally parallel relation to the longitudinal axis of the drive shaft;

a sole striking surface on the body member, the striking surface having a striking axis perpendicular thereto that intersects the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the sole striking surface will advance the drive shaft in the direction the tip is facing;

a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the striking surface; and

the tool further comprising a shoe mounted thereon and comprising a shim plate positioned between the contact surface and the drive shaft.

Claim 15. (Previously presented) A tool as defined in claim 14 wherein the shoe is removably secured to the body member.

Claim 16. (Previously presented) A method of removing a retaining pin from a first object and a second object, the first object and the second object having aligned holes through which the retaining pin extends to secure the objects together, by utilizing a tool comprising a drive shaft extending from a body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip, the body member defining a contact surface that extends in a generally parallel relation to the longitudinal axis of the drive shaft to define an offset distance between the contact surface and the drive shaft, a striking surface on the body member, the striking surface having a striking axis perpendicular thereto that intersects the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the striking surface will urge the drive shaft in the direction the tip is facing, a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the striking surface, the method comprising the steps of:

positioning a shim plate between the contact surface and the drive shaft to adjust the offset distance between the contact surface and the drive shaft;
gripping the handle of the tool with one hand of the user;
aligning the tip of the drive shaft of the tool with one end of the retaining pin; and
striking the striking surface with a hammer held in the other hand of the user one or more times as required to drive the retaining pin from the aligned holes sufficiently to separate the two objects.

Claim 17. (Previously presented) A method of installing a retaining pin into aligned holes of a first object and a second object in order to secure the objects together by the pin, by utilizing a tool comprising a drive shaft extending from a body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip, the distal end of the drive shaft being dimensioned and configured to receive and retain an adaptor sleeve over the drive shaft, a striking surface on the body member, the striking surface having a striking axis perpendicular thereto that intersects the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the striking surface will urge the drive shaft in the direction the tip is facing, a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the striking surface, the method comprising the steps of:

placing one end of the adaptor sleeve over the drive shaft and placing one end of the retaining pin in the other end of the adaptor sleeve;

partially inserting the retaining pin into the aligned holes, leaving a portion of the retaining pin protruding from the aligned holes;

gripping the handle of the tool with one hand of the user;

aligning the tip of the drive shaft of the tool with the protruding end of the retaining pin; and

striking the anvil plate with a hammer held in the other hand of the user one or more times as required to drive the retaining pin into the aligned holes sufficiently to secure the two objects together.

Claim 18. (Original) A method as defined in claim 16 or claim 17 utilizing a tool wherein the handle is removably mountable on the tool to extend transversely thereof from either one or the other of the opposite sides of the tool to thereby accommodate either a left-handed or right-handed user, the method further comprising a preliminary step of:

mounting the removable handle on the tool to extend from a selected side of the tool so as to accommodate the handedness of the user.

Claim 19. (Canceled)

Claim 20. (Previously presented) A pin removal and placement tool comprising:

a body member defining a contact edge;

a drive shaft extending from the body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip, the drive shaft extending from the body member in generally parallel relation to the contact edge with the contact edge extending beyond the tip of the drive shaft;

an anvil plate on the body member, the anvil plate having a striking surface and a striking axis perpendicular to the striking surface, the striking axis intersecting the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the striking surface will urge the drive shaft in the direction the tip is facing;

a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the anvil plate; and

an adaptor sleeve that is dimensioned and configured to be slidably mounted on the drive shaft to extend beyond the drive shaft, and to receive a retaining pin therein.

Claim 21. (Previously presented) A pin removal and placement tool comprising:

a body member;

a drive shaft extending from the body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip;

a striking surface on the body member, the striking surface having a striking axis perpendicular thereto that intersects the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the striking surface will advance the drive shaft in the direction the tip is facing;

a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the striking surface; and

a shoe mounted on the tool and comprising a shim plate positioned between the contact surface and the drive shaft.

Claim 22. (Previously presented) The tool as defined in claim 21 wherein the shoe is removably secured to the body member.

Claim 23. (New) A pin removal and placement tool comprising:

a body member defining a contact edge;

a drive shaft extending from the body member, the drive shaft having a longitudinal axis and a distal end which terminates at a tip, the drive shaft extending from the body member in generally parallel relation to the contact edge with the contact edge extending beyond the tip of the drive shaft;

an anvil plate on the body member, the anvil plate defining a sole striking surface of the tool and having a striking axis perpendicular to the sole striking surface, the striking axis intersecting the longitudinal axis of the drive shaft at an acute angle θ , the striking surface facing away from the tip of the drive shaft whereby a blow struck against the striking surface will urge the drive shaft in the direction the tip is facing;

a handle on the body member, the handle extending transversely from a plane defined by the longitudinal axis of the drive shaft and the striking axis of the anvil plate; and

the tool further comprising a shoe mounted thereon and comprising a shim plate positioned between the contact surface and the drive shaft.

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Claim 24. (New) A tool as defined in claim 23 wherein the shoe is removably secured to the body member.